



General

Guideline Title

Pharmacologic management of newly detected atrial fibrillation.

Bibliographic Source(s)

American Academy of Family Physicians. Updated clinical practice guideline: pharmacologic management of newly detected atrial fibrillation. Leawood (KS): American Academy of Family Physicians; 2017 Apr. 19 p. [33 references]

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Snow V, Weiss KB, LeFevre M, McNamara R, Bass E, Green LA, Michl K, Owens DK, Susman J, Allen DI, Mottur-Pilson C. Management of newly detected atrial fibrillation: a clinical practice guideline from the American Academy of Family Physicians and the American College of Physicians. Ann Intern Med. 2003 Dec 16;139(12):1009-17. [57 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

NEATS Assessment

National Guideline Clearinghouse (NGC) has assessed this guideline's adherence to standards of trustworthiness, derived from the Institute of Medicine's report [Clinical Practice Guidelines We Can Trust](#).

■■■■= Poor ■■■■= Fair ■■■■= Good ■■■■= Very Good ■■■■= Excellent

Assessment	Standard of Trustworthiness
YES	Disclosure of Guideline Funding Source
■■■■	Disclosure and Management of Financial Conflict of Interests

	Guideline Development Group Composition
UNKNOWN	Multidisciplinary Group
YES	Methodologist Involvement
■■■■■	Patient and Public Perspectives
	Use of a Systematic Review of Evidence
■■■■■	Search Strategy
■■■■■	Study Selection
■■■■■	Synthesis of Evidence
	Evidence Foundations for and Rating Strength of Recommendations
■■■■■	Grading the Quality or Strength of Evidence
■■■■■	Benefits and Harms of Recommendations
■■■■■	Evidence Summary Supporting Recommendations
■■■■■	Rating the Strength of Recommendations
■■■■■	Specific and Unambiguous Articulation of Recommendations
■■■■■	External Review
■■■■■	Updating

Recommendations

Major Recommendations

The quality of evidence (High, Moderate, Low, Very Low) and grades of recommendations (Strong, Weak, Good Practice Point) are defined at the end of the "Major Recommendations" field.

Recommendation 1

The American Academy of Family Physicians (AAFP) strongly recommends rate control in preference to rhythm control for the majority of patients who have atrial fibrillation (strong recommendation, moderate-quality evidence). Preferred options for rate-control therapy include non-dihydropyridine calcium channel blockers and beta blockers. Rhythm control may be considered for certain patients based on patient symptoms, exercise tolerance, and patient preferences (weak recommendation, low-quality evidence).

Recommendation 2

The AAFP recommends lenient rate control (<110 beats per minute resting) over strict rate control (<80 beats per minute resting) for patients who have atrial fibrillation (weak recommendation, low-quality evidence).

Recommendation 3

The AAFP recommends that clinicians discuss the risk of stroke and bleeding with all patients considering anticoagulation (good practice point). Clinicians should consider using the continuous CHADS₂ (Congestive heart failure, Hypertension, Age 75+, Diabetes mellitus, prior Stroke, transient ischemic attack or thromboembolic event) or continuous CHA₂DS₂-VASc (Congestive heart failure, Hypertension, Age 75+, Diabetes mellitus, prior Stroke, transient ischemic attack or thromboembolic event, Vascular disease, Age 65-74, Sex category) for prediction of risk of stroke (weak recommendation, low-quality evidence) and HAS-BLED (Hypertension, Abnormal renal/liver function, Stroke, Bleeding history or predisposition, Labile international normalized ratio, Elderly [>65 years], Drugs/alcohol concomitantly) for prediction of risk for bleeding (weak recommendation, low-quality evidence) in patients who have atrial fibrillation.

Recommendation 4

The AAFP strongly recommends that patients who have atrial fibrillation receive chronic anticoagulation unless they are at low risk of stroke (CHADS₂ <2) or have specific contraindications (strong recommendation, high-quality evidence). Choice of anticoagulation therapy should be based on patient preferences and patient history. Options for anticoagulation therapy may include warfarin, apixaban, dabigatran, edoxaban, or rivaroxaban.

Recommendation 5

The AAFP strongly recommends against dual treatment with anticoagulant and antiplatelet therapy in most patients who have atrial fibrillation (strong recommendation, moderate-quality evidence).

Definitions

American Academy of Family Physicians Grading System†

Recommendation*	Definition	Quality of Evidence**
Strong	High confidence in the net benefit for patient-oriented outcomes. Most informed patients would choose recommended option.	High
		Moderate
Weak	Lower confidence in the net benefit for patient-oriented outcomes. Patient choices may vary based on values and preferences.	Moderate
		Low

†The AAFP uses a modified version of Grading of Recommendations Assessment, Development and Evaluation (GRADE).

*Recommendations can be either for or against an intervention or testing modality.

**The strength of the recommendation should be consistent with the quality of the evidence such that strong recommendations are based on high-quality evidence, whereas weak recommendations are based on low- to moderate-quality evidence. Very low-quality evidence should be considered insufficient for a recommendation unless there are highly unusual circumstances and the benefits would greatly outweigh the harms.

Good Practice Point – The GRADE system also provides opportunities to issue guideline recommendations without a rating when appropriate (e.g., those that will be helpful to a clinician but for which there is no direct evidence to support the recommendation). These statements are labeled by the AAFP as "good practice points."

Quality of Evidence

High Quality: Further research is very unlikely to change confidence in the estimate of effect.

Moderate Quality: Further research is likely to have an important impact on confidence in the estimate of effect, and may change the estimate.

Low Quality: Further research is very likely to have an important impact on confidence in the estimate of effect, and is likely to change the estimate.

Very Low Quality: Any estimate of effect is very uncertain.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

- Atrial fibrillation
- Stroke

Guideline Category

Management

Prevention

Risk Assessment

Treatment

Clinical Specialty

Cardiology

Family Practice

Geriatrics

Internal Medicine

Intended Users

Advanced Practice Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To provide recommendations for primary care-relevant pharmacologic treatments of patients who have nonvalvular atrial fibrillation

Target Population

Adults who have atrial fibrillation, as defined by electrocardiographic evidence of atrial fibrillation with or without symptoms

Note: All frequencies and durations of atrial fibrillation (paroxysmal, persistent, and permanent) are included. This guideline does not apply to patients who have atrial fibrillation due to a reversible cause (post-operative, post-myocardial infarction, or due to hyperthyroidism) or

patients who have atrial fibrillation due to valvular disease.

Interventions and Practices Considered

1. Rate control therapy
 - Beta-blockers
 - Non-dihydropyridine calcium-channel blockers
2. Rhythm control therapy for certain patients based on patient symptoms, exercise tolerance, and patient preference
3. Lenient versus strict rate control
4. Discussing the risk of stroke and bleeding with all patients considering anticoagulation
5. Using the continuous CHADS₂ (Congestive heart failure, Hypertension, Age 75+, Diabetes mellitus, prior Stroke, transient ischemic attack or thromboembolic event) or continuous CHA₂DS₂-VASc (Congestive heart failure, Hypertension, Age 75+, Diabetes mellitus, prior Stroke, transient ischemic attack or thromboembolic event, Vascular disease, Age 65-74, Sex category) for prediction of risk of stroke
6. Using HAS-BLED (Hypertension, Abnormal renal/liver function, Stroke, Bleeding history or predisposition, Labile international normalized ratio, Elderly [>65 years], Drugs/alcohol concomitantly) for prediction of risk for bleeding
7. Chronic anticoagulation therapy including warfarin, apixaban, dabigatran, edoxaban, or rivaroxaban
8. Dual treatment with anticoagulant and antiplatelet therapy (recommendation against)

Major Outcomes Considered

- Maintenance of ventricular rate and sinus rhythm
- Symptom relief
- Quality of life
- All-cause and cardiovascular mortality
- Stroke
- Systemic embolism
- Cardiovascular events
- Hospitalizations
- Major and minor bleeding
- Other adverse events due to medications

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Systematic Reviews

In 2013, the Agency for Healthcare Research and Quality (AHRQ) published two comparative effectiveness

reviews. The first report, *Treatment of Atrial Fibrillation: Comparative Effectiveness Review No. 119*, reviewed the evidence for pharmacologic and surgical treatment of atrial fibrillation. The second review, *Stroke Prevention in Atrial Fibrillation: Comparative Effectiveness Review No. 123*, reviewed the evidence for different anticoagulation strategies for patients with atrial fibrillation. These reports were based on literature searches from January 1, 2000, to August 14, 2012. Refer to the systematic reviews (see the "Availability of Companion Documents" field) for search information and results.

Updated Literature Search

A targeted, updated literature search using the same search criteria outlined in AHRQ reports was completed by the American Academy of Family Physicians (AAFP) medical librarian. The updated search resulted in 217 articles spanning the time from the completion of the AHRQ reports in 2012 through December 31, 2015. The search strategy is outlined in Appendix A of the original guideline document. Two reviewers independently examined citations and abstracts using the same inclusion and exclusion criteria that were used in the AHRQ evidence reports. A full text article was reviewed if at least one reviewer thought it should be included. This resulted in the review of 91 full text articles. Following exclusion of 48 articles, the remaining 43 articles underwent assessment for risk of bias and study quality. Each relevant study was rated for quality (good, fair, poor) by at least two independent reviewers using the approach outlined by the AHRQ *Methods Guide for Effectiveness and Comparative Effectiveness Reviews*. In keeping with the AHRQ methods, only studies that were rated as good or fair were included for consideration. Studies rated as poor were not included. For this updated evidence review, 16 articles were included (see Appendix B in the original guideline). The updated literature search resulted in the inclusion of one additional RCT with a new medication (edoxaban) that was not addressed in the AHRQ report on stroke prevention. This RCT was used to inform Recommendation 4 on options for chronic anticoagulation. The other studies found in the updated search were observational and secondary analyses of RCTs included in the AHRQ reports. These additional studies did not change the conclusions from the original AHRQ evidence reports. However, these analyses were considered by the panel in determining the recommendations and are discussed in the guideline text as appropriate.

Number of Source Documents

16 articles were included in the guideline text from the updated literature search.

Refer to the literature flow diagrams in the Agency for Healthcare Research and Quality (AHRQ) reports (see the "Availability of Companion Documents" field) for numbers of source documents.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality of Evidence

High Quality: Further research is very unlikely to change confidence in the estimate of effect.

Moderate Quality: Further research is likely to have an important impact on confidence in the estimate of effect, and may change the estimate.

Low Quality: Further research is very likely to have an important impact on confidence in the estimate of effect, and is likely to change the estimate.

Very Low Quality: Any estimate of effect is very uncertain.

Methods Used to Analyze the Evidence

Meta-Analysis

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

The full Agency for Healthcare Research and Quality (AHRQ) evidence reports provide details on the data extraction, quality assessment of individual studies, data synthesis, strength of the body of evidence, and applicability across key questions for each systematic review.

The evidence from the systematic reviews was evaluated using a modified version of the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system to rate the quality of the evidence for each outcome and the overall strength of each recommendation (see the "Rating Scheme for the Strength of the Evidence" and the "Rating Scheme for the Strength of the Recommendations" fields).

Quantitative risk information was included in the supporting text using data from the AHRQ reports and individual studies, as appropriate. The number needed to treat/harm was calculated from these data. Evidence tables were created using the GRADEpro Guideline Development Tool (Software) (McMaster University, 2015 [developed by Evidence Prime, Inc.]). Available at grade.pro .

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Differences from Previous Guideline

This guideline updates and replaces an earlier guideline published in 2003 from the American Academy of Family Physicians (AAFP) and the American College of Physicians, which was reaffirmed by the AAFP in 2008. The topic was nominated to the Agency of Healthcare Research and Quality (AHRQ) for an updated evidence review in 2011. Changes in the methodology and scope of the guideline include the following:

- Adding a consumer/patient representative
- Including evidence for new direct oral anticoagulants
- Including evidence on strict versus lenient rate control
- Narrowing the scope of the guideline to focus solely on pharmacologic management
- Adding a recommendation on risk assessment for stroke
- Adding shared decision-making tools to compare treatment options for rate control and anticoagulation

Systematic Review

In 2013, AHRQ published two comparative effectiveness reviews. The first report, *Treatment of Atrial Fibrillation: Comparative Effectiveness Review No. 119*, reviewed the evidence for pharmacologic and surgical treatment of atrial fibrillation. The second review, *Stroke Prevention in Atrial Fibrillation: Comparative Effectiveness Review No. 123*, reviewed the evidence for different anticoagulation strategies for patients with atrial fibrillation. These reports were based on literature searches from January 1, 2000, to August 14, 2012.

The scope of the AHRQ reports was reviewed, and the panel chose to focus on the following key questions that they considered most relevant to primary care practice:

Treatment of Atrial Fibrillation

Key question (KQ) 1: What are the comparative safety and effectiveness of pharmacological agents used for ventricular rate control in patients with atrial fibrillation? Do the comparative safety and effectiveness of these therapies differ among specific patient subgroups of interest?

KQ2: What are the comparative safety and effectiveness of a strict rate-control strategy versus a more lenient rate-control strategy in patients with atrial fibrillation? Do the comparative safety and effectiveness of these therapies differ among specific patient subgroups of interest?

KQ6: What are the comparative safety and effectiveness of rate-control therapies compared with rhythm-control therapies in patients with atrial fibrillation? Do the comparative safety and effectiveness of these therapies differ among specific patient subgroups of interest?

Stroke Prevention in Atrial Fibrillation

KQ1: In patients with nonvalvular atrial fibrillation, what are the comparative diagnostic accuracy and impact on clinical decision making (diagnostic thinking, therapeutic, and patient outcome efficacy) of available clinical and imaging tools for predicting thromboembolic risk?

KQ2: In patients with nonvalvular atrial fibrillation, what are the comparative diagnostic accuracy and impact on clinical decision making (diagnostic thinking, therapeutic, and patient outcome efficacy) of clinical tools and associated risk factors for predicting bleeding events?

KQ3: What are the comparative safety and effectiveness of specific anticoagulation therapies, antiplatelet therapies, and procedural interventions for preventing thromboembolic events:

In patients with nonvalvular atrial fibrillation?

In specific subpopulations of patients with nonvalvular fibrillation?

The sections of the AHRQ evidence reports relevant to these key questions were reviewed and used as the foundation for the AAFP's recommendations.

Constructing the Guideline

The AAFP's Commission on Health of the Public and Science appointed a guideline development group (GDG) to update the guideline. Specifics on the guideline development panel and process can be found in the *AAFP Clinical Practice Guideline Manual* (see the "Availability of Companion Documents" field). The GDG reviewed the 2003 guideline and the two AHRQ evidence reports. The panel evaluated each recommendation from the guideline and determined those that would be included in the update. The GDG determined that the recommendations for pharmacologic treatment of atrial fibrillation and anticoagulation were the most relevant for family physicians.

The evidence from the systematic reviews was evaluated using a modified version of the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system to rate the quality of the evidence for each outcome and the overall strength of each recommendation. GRADE uses the term "strength of recommendation" to rate the extent to which one can be confident that the desirable effects of an intervention outweigh the undesirable effects and reflect the degree to which there is evidence of improved patient-oriented health outcomes (see the "Rating Scheme for the Strength of the Recommendations" field). The GRADE system also provides opportunities to issue guideline recommendations without a rating when appropriate (e.g., those that will be helpful to a clinician but for which there is no direct evidence to support the recommendation). These statements are labeled by the AAFP as "good practice points."

Guideline recommendations were finalized based on consensus of the GDG. Patient-oriented outcomes were prioritized in the guideline recommendations. Outcomes assessed included maintenance of ventricular rate and sinus rhythm; symptom relief; quality of life; all-cause and cardiovascular mortality; stroke; systemic embolism; cardiovascular events; hospitalizations; major and minor bleeding; and other adverse events due to medications. The recommendations were worded to reflect the strength and

direction of the recommendation, and the quality of the evidence was listed parenthetically.

Rating Scheme for the Strength of the Recommendations

American Academy of Family Physicians Grading System[†]

Recommendation*	Definition	Quality of Evidence**
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[†]The AAFP uses a modified version of Grading of Recommendations Assessment, Development and Evaluation (GRADE).

*Recommendations can be either for or against an intervention or testing modality.

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Good Practice Point – The GRADE system also provides opportunities to issue guideline recommendations without a rating when appropriate (e.g., those that will be helpful to a clinician but for which there is no direct evidence to support the recommendation). These statements are labeled by the AAFP as "good practice points."

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Peer Review

The guideline was peer-reviewed by relevant external stakeholders. All comments and any modifications based on those comments were documented. The American Academy of Family Physicians (AAFP) Commission on Health of the Public and Science (CHPS) and Board of Directors reviewed and approved the final guideline in April of 2017.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Atrial fibrillation (AF) is a significant independent risk factor for stroke, causing 15% to 20% of ischemic strokes. Prophylactic treatment with anticoagulants has proven to be highly effective for the prevention of stroke in patients with AF. Vitamin K antagonists have been used successfully for more than 50 years and are considered to be the gold standard for anticoagulant therapy. Direct anticoagulants provide additional options for stroke prophylaxis in patients with AF. The risks, benefits, and burdens related to cost and quality of life are outlined in Table 5 of the original guideline document. Patients with multiple comorbidities—including diabetes mellitus, hypertension, heart failure, coronary artery disease, renal impairment, and cerebrovascular disease—were included in the studies. There is insufficient evidence to assess these subpopulations to determine their individual benefit from anticoagulation. Dose modifications may be required for patients with renal insufficiency, depending on the degree of renal impairment.

Potential Harms

Prior to initiating treatment, clinicians should discuss the benefits and harms of the different anticoagulants, including potential medication cost and lifestyle modifications. Risk of bleeding should also be discussed. Careful risk assessment is essential, as patients with a low risk of stroke may not be appropriate for anticoagulation. Due to the increased risk of bleeding, dual therapy with aspirin and anticoagulants should be avoided.

See Table 5 in the original guideline for risks of oral anticoagulants for stroke prevention in patients with atrial fibrillation. See Table 6 in the original guideline for risks of dual therapy.

Contraindications

Contraindications

Contraindications for warfarin include the following:

- Pregnancy, except in women with mechanical heart valves
- Hemorrhagic tendencies or blood dyscrasias
- Recent or planned surgery of the central nervous system or eye, or traumatic surgery resulting in large open surfaces
- Potential high levels of noncompliance in unsupervised patients
- Hypersensitivity to warfarin
- Malignant hypertension

See Table 5 in the original guideline for additional risks and contraindications of oral anticoagulants for stroke prevention in patients with atrial fibrillation.

Qualifying Statements

Qualifying Statements

These recommendations are provided only as assistance for clinicians making clinical decisions regarding

the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations. All American Academy of Family Physicians (AAFP) guidelines are scheduled for a review five years after completion or sooner if new evidence becomes available.

This guideline was developed using available evidence; however, gaps were identified. New research into these areas may affect the recommendations, at which time the guideline will be updated accordingly. Research gaps that would provide important information are provided in the original guideline document.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Patient Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

American Academy of Family Physicians. Updated clinical practice guideline: pharmacologic management of newly detected atrial fibrillation. Leawood (KS): American Academy of Family Physicians; 2017 Apr. 19 p. [33 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2017 Apr

Guideline Developer(s)

American Academy of Family Physicians - Medical Specialty Society

Guideline Developer Comment

Not applicable

Source(s) of Funding

All costs associated with the development of this guideline came exclusively from the operating budget of the American Academy of Family Physicians (AAFP).

Guideline Committee

Guideline Development Group

Composition of Group That Authored the Guideline

Guideline Development Group Members: Jennifer L. Frost, MD, FAAFP (*writer, methodologist*), American Academy of Family Physicians, Leawood, KS; Doug Campos-Outcalt, MD, MPA (*writer*), Mercy Care Plan, Phoenix, AZ; David Hoelting, MD (*writer*), Pender-Mercy Medical Center, Pender, NE; Michael LeFevre, MD, MSPH (*writer, chair*), Department of Family and Community Medicine, University of Missouri, Columbia, MO; Kenneth W. Lin, MD, MPH, FAAFP (*writer*), Department of Family Medicine, Georgetown University, Washington, DC; William Vaughan (*writer, patient/consumer advocate*), Consumers United for Evidence-Based Healthcare, Baltimore, MD; Melanie D. Bird, PhD (*writer, AAFP staff liaison*), American Academy of Family Physicians, Leawood, KS

Financial Disclosures/Conflicts of Interest

Conflicts of interest (COI) were solicited in writing at the beginning of the guideline process and updated verbally at each subsequent call. No panel member disclosed any COI.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Snow V, Weiss KB, LeFevre M, McNamara R, Bass E, Green LA, Michl K, Owens DK, Susman J, Allen DI, Mottur-Pilson C. Management of newly detected atrial fibrillation: a clinical practice guideline from the American Academy of Family Physicians and the American College of Physicians. *Ann Intern Med.* 2003 Dec 16;139(12):1009-17. [57 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the [American Academy of Family Physicians \(AAFP\) Web site](#) .

Availability of Companion Documents

The following are available:

Lopes RD, Crowley MJ, Shah BR, Melloni C, Wood KA, Chatterjee R, Povsic TJ, Dupre ME, Kong DF, Barros e Silva PGM, Santos MHH, Armaganijan LV, Katz M, Kosinski A, McBroom AJ, Chobot MM, Gray R, Sanders GD. Stroke prevention in atrial fibrillation. Comparative effectiveness review no. 123. (Prepared by the Duke Evidence-based Practice Center under Contract No. 290-2007-10066-I.) AHRQ Publication No. 13-EHC113-EF. Rockville (MD): Agency for Healthcare Research and Quality; 2013 Aug. 341 p. Available from the [Agency for Healthcare Research and Quality \(AHRQ\) Web site](#) .

Al-Khatib SM, Allen Lapointe N, Chatterjee R, Crowley MJ, Dupre ME, Kong DF, Lopes RD, Povsic TJ, Raju SS, Shah BR, Kosinski A, McBroom AJ, Chobot MM, Gray R, Sanders GD. Treatment of atrial fibrillation. Comparative effectiveness review 119. (Prepared by the Duke Evidence-based Practice Center under Contract No. 290-2007-10066-I.) AHRQ Publication No.13-EHC095-EF. Rockville (MD): Agency for Healthcare Research and Quality; 2013 Jun. 348 p. Available from the [AHRQ Web site](#) .

American Academy of Family Physicians. Clinical practice guideline manual. Leawood (KS): American Academy of Family Physicians; 2017. Available from the [American Academy of Family Physicians \(AAFP\) Web site](#) .

American Academy of Family Physicians. Developing clinical practice guidelines. Webcast series. Leawood (KS): American Academy of Family Physicians; 2017. Available from the [AAFP Web site](#) .

Patient Resources

The following is available:

Arrhythmia. Patient information. Leawood (KS): American Academy of Family Physicians; 2017 Jun. 4 p. Available from the [FamilyDoctor.org Web site](#) .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This NGC summary was completed by ECRI on May 20, 2004. The information was verified by the guideline developer on June 4, 2004. This summary was updated by ECRI on March 6, 2007 following the U.S. Food and Drug Administration (FDA) advisory on Coumadin (warfarin sodium). This summary was updated by ECRI Institute on September 7, 2007 following the revised U.S. Food and Drug Administration (FDA) advisory on Coumadin (warfarin). This summary was updated by ECRI Institute on July 17, 2017. The updated information was verified by the guideline developer on August 10, 2017.

This NEATS assessment was completed by ECRI Institute on July 19, 2017. The information was verified by the guideline developer on August 10, 2017.

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